"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

Dependence of resonator chain . . .

$$S' = \frac{S}{\sqrt{1+P-Q\cos\varphi\cos\theta}}, \qquad (2)$$

$$\alpha'_\pi = \alpha_\pi \sqrt{1+P-Q\cos\varphi\cos\theta},$$

4

θ - the angle of slot rotation in every other diaphragm; P and Q are coefficients taking into account the intrinsic common to the diaphragms currents and may be evaluated in approximation for simple configuration of coupling slots. Calculations using formulae (1) and (2) give good agreement of theory with experiment in the cases of narrow peripheral slots with angular lengths of the order of 90°. The practically important case is considered in more detail when $S > 1$, $p > 1$; For this case the effect of diaphragm currents results in a smaller resonant length of the slot wave

$$S'(0) = S'(\pi) = S/\sqrt{1+P}$$

which results again in somewhat narrower pass-band which is only partly compensating by the increased coupling coefficient $\alpha'_\pi = \alpha_\pi \sqrt{1+P}$. With identical diaphragm positioning ($\theta = 0$) and $\varphi = 0$, the resonant wavelength of the slot increases ($S'(0) = S/\sqrt{1+P-Q}$)

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Dependence of resonator chain ...

and for $\varphi = \pi$ - it decreases ($S'(\pi) = S/\sqrt{1 + P + Q}$). This effect results in an abrupt narrowing of the pass-band and for large values of indirect coupling between slots leads to a change in the sign of dispersion of the long wave pass-band. At $\theta = 180^{\circ}$, the opposite effect takes place; the pass band is wider compared with the case when $\theta = 90^{\circ}$. The theoretical considerations given above are in good agreement with experiments as shown in Fig. 2. Experimental results have also shown that the dependence of coupling resistance R for the first space harmonic in angle θ is fundamentally determined by changes in the ratio phase v_{ph} to group velocity v_{gr}. The dependence $R(\theta)$, for the phase shift of the system period of $\varphi = \frac{3}{2}\pi$ is also given graphically. Thus the angle of rotation of slots makes it possible to vary -- within large limits -- the properties of the delay system which could be used for matching or gradual variation of the parameters. Of interest would be the study of a system, in which coupling slots in diaphragms are displaced according to a spiral. There are 3 figures and 1 non-Soviet-bloc reference.

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D201/D305

Dependence of resonator chain ...

The reference to the English-language publication reads as follows: M.A. Allen, G.S. Kino, On the theory of strongly coupled cavity chains, IRE Trans., 1960, MTT-8, 5, 362.

SUBMITTED: May 8, 1961

4

Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

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E192/E382

94230

AUTHORS: Lizhdboy, K. Ya. and Trokhimenko, Ya.K.

TITLE: Calculation of the coupling resistance in periodic delay systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 5, no. 6, 1962, 682 - 687

TEXT: The efficiency of the interaction between an electron beam and the field of the n-th space harmonic in electron-beam devices (with an extended range of interaction) is estimated by the magnitude of the coupling resistance, which is defined by Pierce as:

$$R_n = \frac{|E_n|^2}{2\beta_n^2 W V_{gr}} \qquad (1)$$

where E_n is the amplitude of the longitudinal components of the electrical field of the n-th space harmonic, β_n is the phase constant of the n-th harmonic, W is the energy stored

Card 1/3

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Calculation of the ....

per unit length of the delay system and V_{gr} is the group velocity of the travelling wave in the system. The amplitude-distribution of the longitudinal component $E(Z)$ of the travelling wave along the axis of the delay system with a periodic structure can be represented as a cosinusoidal graph, shown in Fig. 1. It is found by adopting this distribution that the coupling resistance for the n-th space harmonic is given by:

$$R_n = A_1 \cdot \frac{c}{V_{gr}} \cdot \frac{1}{(\varphi + 2\pi n)^4} \sin^2\left(\frac{\varphi + 2\pi n}{2}\right) \cdot \frac{d}{\ell} \qquad (15)$$

where φ is the phase-shift for one period of the system for the principal harmonic, $A_1 = 4\ell^2/Ac$ is the proportionality coefficient depending on the configuration of the delay system, c is the velocity of light and ℓ and d are defined in Fig. 1. Eq. (15) can be used to evaluate the optimum value of d/ℓ for various values of φ. This optimum ratio is expressed as:

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Calculation of the ....

$$\left(\frac{d}{\ell}\right)_{opt} = \frac{\pi}{\varphi + 2\pi n} \quad .$$

Eq. (15) was verified experimentally for the principal harmonic and the first positive space harmonic. Eq. (15) is sufficiently accurate for practical calculations although the theory and measurements are not entirely in agreement. There are 5 figures.

ASSOCIATION: Kafedra radioperedayushchikh ustroystv Kiyevskogo ordena Lenina politekhnicheskogo instituta (Department of Radio-transmitting Devices of Kiyev Order of Lenin Polytechnical Institute)

SUBMITTED: May 7, 1962

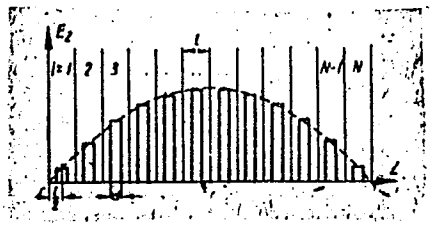

Fig. 1:

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIMENKO, Yaroslav Karpovich[Trokhymenko, IA.K.], kand.tekhn.nauk; GERASIMOV, S.M.[Herasymov, S.M.], prof., retsenzent; RAK, K.P., inzh., red. izd-va; STARODUB, T.O., tekhn. red.

[Transistors in electronic circuits] Tranzystory v elektronnykh skhemakh. Kyiv, Derzhtekhvydav URSR, 1963. 168 p. (MIRA 17:3)

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SIGORSKIY, Vitaliy Petrovich, doktor tekhn. nauk; TROKHIMENKO, Ya.K., kand. tekhn.nauk, retsenzent; POLYANSKAYA, L.O., inzh., red. izd-va; MATUSEVICH, S.M., tekhn. red.

[Analysis of electronic circuits] Analiz elektronnykh skhem. Izd.2., ispr. i dop. Kiev, Gostekhizdat USSR, 1963. 198 p. (MIRA 16:5)

(Electronic circuits)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

NAGORNYY, Leonid Yakovlevich, kand. tekhn. nauk; TROKHIMENKO, Ya.K., kand. tekhn. nauk, retsenzent; POLYANSKAYA, L.O., inzh., red.izd-va; SHAFETA, S.M., tekhn. red.

[Analysis and design of amplifier networks] Analiz i raschet usilitel'nykh skhem. Kiev, Gostekhizdat USSR, 1963. 243 p. (MIRA 16:6)

(Amplifiers (Electronics)) (Electronic circuits)

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TROKHIMENKO, Ya.K.

Control-type teaching automats. Izv. vys. ucheb. zav.; radiotekh. 6 no.4:446-448 Jl-Ag '63. (MIRA 16:11)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIMENKO, Ya.K.; ISAKOV, V.N.

Performance of a traveling-wave tube in the second passband of a septate waveguide. Izv. vys. ucheb. zav.; radiotekh. 7 no.1:51-57 Ja-F'64. (MIRA 17:5)

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SERDYUK, Yu.V.; TROKHIMENKO, Ya.K.

Silicon p-n-p-n-type controlled rectifiers. Izv. vys. uchseb. zav.; radiotekh. 8 no.2:151-164 Mr-Ap '65.
(MIRA 18:7)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TARANENKO, Zoya Il'inichna, kand. tekhn. nauk; TROKHIMENKO, Yaroslav Karpovich, kand. tekhn. nauk; AKALOVSKIY, I.V., kand. tekhn. nauk, retsenzent

[Delay systems] Zamedliaiushchie sistemy. Kiev, Tekhnika, 1965. 306 p. (MIRA 19:1)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

L 25799-66 EWA(h)/EWT(1)
ACC NR: AM6008542 Monograph UR/ 28 B+1

Tarenenko, Zoya Il'inichna (Candidate of Technical Sciences); Trokhimenko, YAroslav Karpovich (Candidate of Technical Sciences)

Delay systems[25] (Zamedlyayushchiye sistemy) Kiev, Izd-vo "Tekhnika", 1965. 306 p. illus., biblio. 6000 copies printed.

TOPIC TAGS: delay circuit, traveling wave, cavity resonator

PURPOSE AND COVERAGE: This book is intended for the technical personnel of industrial enterprises and design offices, and may also be used by aspirants and students in advanced courses of radio engineering and radio electronic divisions of schools of higher education. It describes the properties of delay systems in shf cathode-ray tubes, using the extensive interaction of the electron beam with the traveling-wave field. General problems pertaining to traveling-wave propagation in delay systems are described. The electrodynamic characteristics of helical, pin, comb, and lumped-parameter delay systems and of cavity resonator circuits, as well as those of some special types of delay systems, are discussed. Methods for theorical and experimental investigation of delay systems and measurement of their basic parameters are presented.

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Card 4/4 SUB CODE: 09/ SUBM DATE: 12Oct65/ ORIG REF: 165/ OTH REF: 122

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ACC NR: AR7000943 SOURCE CODE: UR/0275/66/000/011/A002/A002

AUTHOR: Trokhimenko, Ya. K.

TITLE: Coupling resistance of delay systems with lumped parameters

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11A12

REF SOURCE: Vestn. Kiyevsk. politekhn. in-ta. Ser. radiotekhn., no. 2, 1965, 86-90

TOPIC TAGS: delay mechanism, traveling wave interaction, space harmonic, lumped parameter delay system, lumped parameter

ABSTRACT: In shf cathode ray devices the electron beam is transmitted through capacitive intervals (transit gaps) in which interaction between electrons and the traveling wave field occurs. Formulas for calculating coupling resistance of the n-space harmonic are derived. Graphs used in determining coupling resistance for the fundamental and the first positive space harmonic, and for several ratios between the transit gap length and the delay system period are presented. A bibliography of 2 titles is included. [Translation of abstract] [DW]

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UDC: 621.385.6

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIMETS, A.I.; MARKEVICH, [illegible]V.

H ⇌ D exchange in ethane on aluminum oxide. Zhur. fiz. khim. 39 no.8:1963-2002 Ag '65. (MIRA 18:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

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TROKHIMETS, A.I.; MARKEVICH, S.V.

Determination of the order of H - D exchange reaction between ethylene and deuterium on γ-oxide of aluminum. Zhur. fiz. khim. 38 no.5:1293-1300 My '64. (MIRA 18:12)

1. Institut fiziko-organicheskoy khimii AN BSSR. Submitted May 18, 1963.

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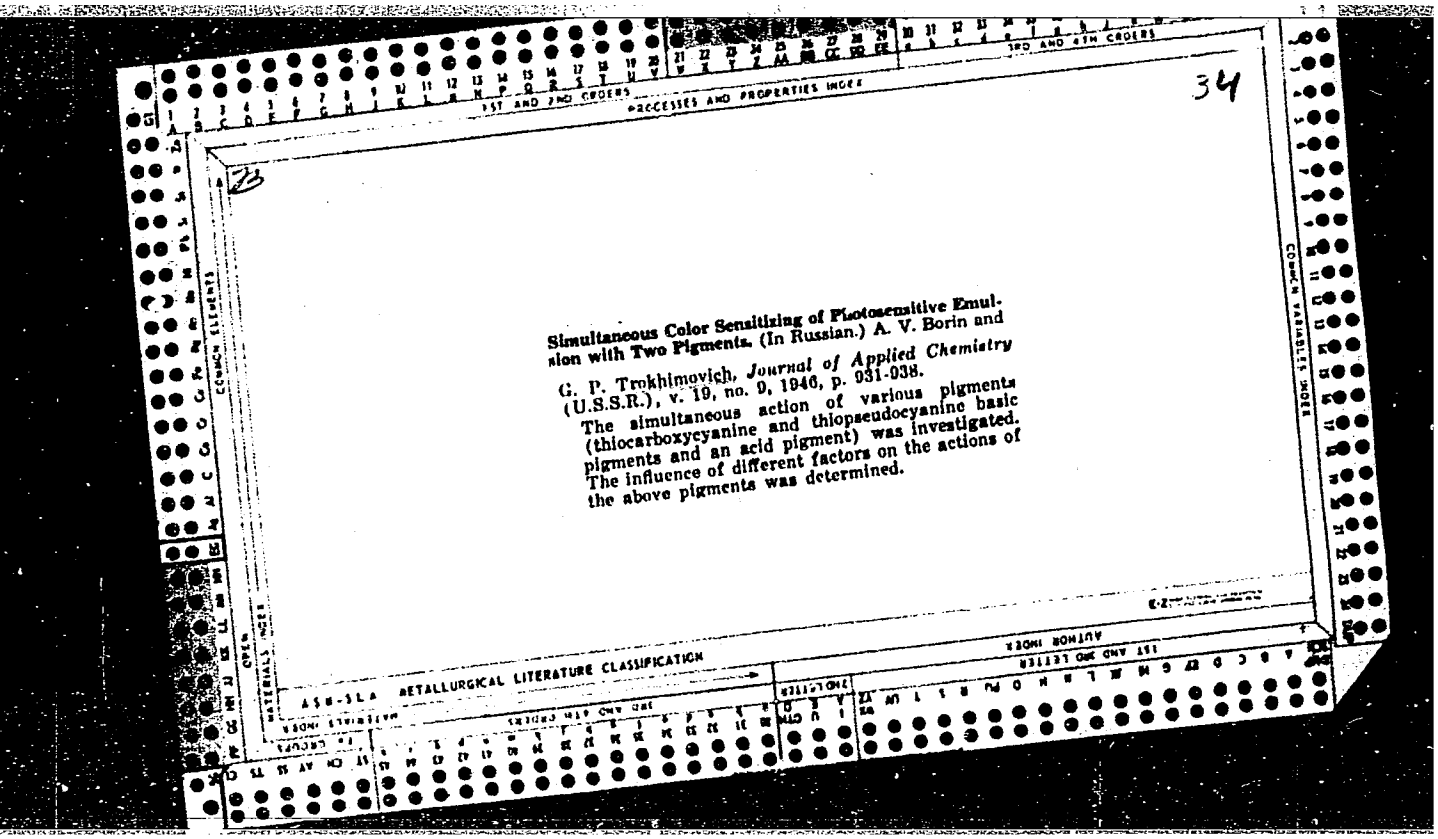

Simultaneous Color Sensitizing of Photosensitive Emulsion with Two Pigments. (In Russian.) A. V. Borin and G. P. Trokhimovich, *Journal of Applied Chemistry* (U.S.S.R.), v. 19, no. 9, 1946, p. 931-938.

The simultaneous action of various pigments (thiocarboxycyanine and thiopseudocyanine basic pigments and an acid pigment) was investigated. The influence of different factors on the actions of the above pigments was determined.

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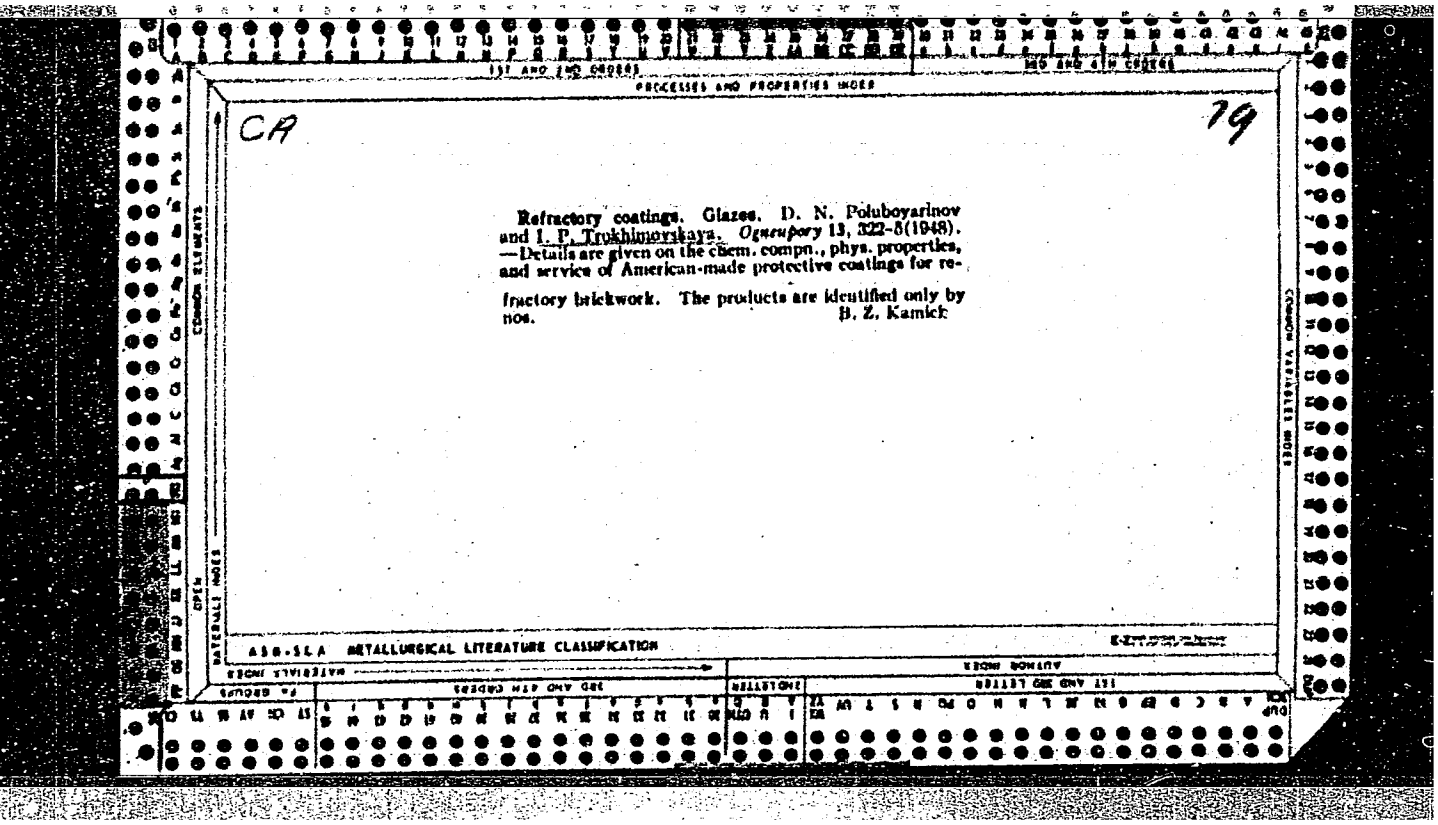

CA 79

Refractory coatings. Glazes. D. N. Poluboyarinov and I. P. Trukhimovskaya. *Ogneupory* 13, 322-5(1948). —Details are given on the chem. compn., phys. properties, and service of American-made protective coatings for refractory brickwork. The products are identified only by nos.

B. Z. Kamick

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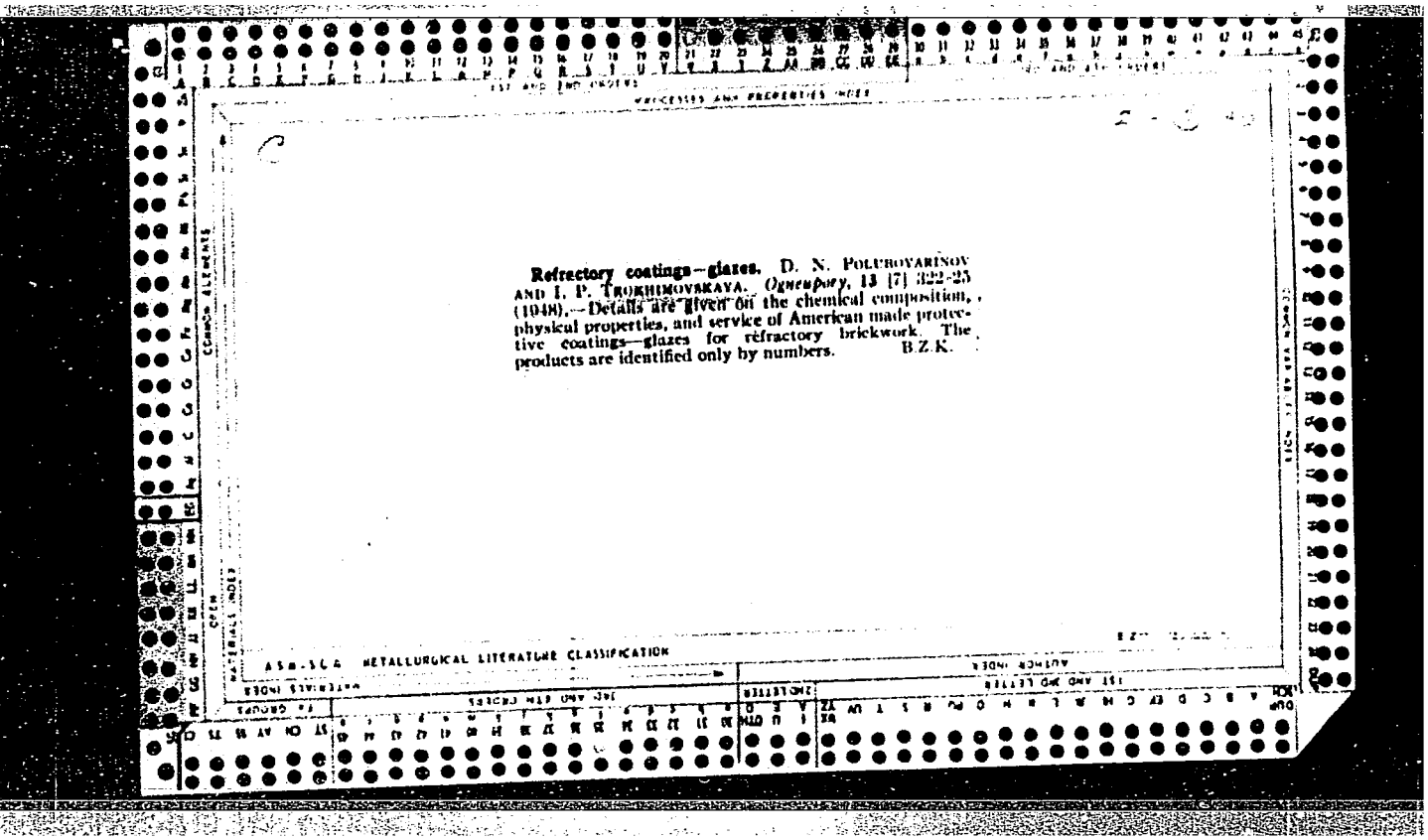

Refractory coatings—glazes. D. N. POLUBOYARINOV AND I. P. TROKHIMOVSKAYA. *Ogneupory*, 13 [7] 322–25 (1948).—Details are given on the chemical composition, physical properties, and service of American made protective coatings—glazes for refractory brickwork. The products are identified only by numbers. B.Z.K.

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BUDNIKOV, P.P., red.; BUTT, Yu.M., red.; MATVEYEV, M.A., red.; TROKHIMOVSKAYA, I.P., red.; GURVICH, E.A., red.; GILENSON, P.G., tekhn.red.

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(Silicates)

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TROKHIMOVSKAYA, I. P.

Jul 48

USSR/Engineering
Refractories

"Refractory Coatings and Glazes," D. N. Poluboyarinov, Dr Tech Sci, Prof, I. P. Trokhimovskaya, Engr, 4 pp

"Ogneupory" Vol XIII, No 7

Describes refractory coatings and glazes used in the US. (Data apparently taken from an article by V. I. Pavlyuchenko in "Amerikanskaya Promyshlennost'" 1945, No 2).

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BARBARINA, T.M.; BUBYR', N.F.; BUTT, L.M.; VEL'SOVSKIY, V.N.; GORLOV, Yu.P.; GRIBANOVSKIY, V.G.; DROZDOV, I.Ya.; YEREMIN, I.A.; ZEZIN, V.G.; KEVESH, P.D.; KOCHAROV, E.P.; KOSYREVA, Z.S.; LEVIN, S.N.; MAKHNOVICH, A.T.; MERZLYAK, A.N.; RODOV, E.S.; ROZHNOV, A.I.; SEREBRYANSKAYA, B.I.; SUKHAREV, M.F.; USTENKO, A.A.; KHOMENKO, Z.S.; SHMIDT, L.M.; ETIN, A.O.; YAKHONTOVA, N.Ye.; KITAYTSEV, Vladimir Andreyevich, prof., doktor tekhn. nauk, red.; SKRAMTAYEV, B.G., glav. red.; TROKHIMOVSKAYA, I.P., zam. glav. red.; KRAVCHENKO, I.V., red.; KITAYGORODSKIY, I.I., red.; KRZHEMINSKIY, S.A., red.; ROKHVARGER, Ye.L., red.; BALAT'YEV, P.K. red.

[Manual on the manufacture of heat insulating and acoustical materials] Spravochnik po proizvodstvu teploizoliatsionnykh i akusticheskikh materialov. Moskva, Stroizdat, 1964. 524 p. (MIRA 18:1)

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TROKHIMOVSKAYA, K. P.
S. A. BUSSE, Khim. Farm. Prom. 1934, No. 1, 31-4

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

KOTEL'NIKOV, V.N.; TROKHIMOVSKAYA, M.N.; SERGEYEVA, G.V.

Effectiveness of producing non-drawn-over footwear. Leg. prom. 17 no.5:15-17 My '57. (MLRA 10:6)

(Shoe industry)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

MOROZOV, I.S., inzhener; TROKHIMOVSKAYA, M.N., inzhener.

Attaching porous soles to the uppers in welt shoes. Leg.prom. 14 no.4: 31-32 Ap '54. (MLRA 7:6)
(Boots and shoes)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ZYUZIN, Arkadiy Ivanovich; TROKHIMOVSKIY, Gay Vladimirovich; BATSANOV, A.S., kand. sel'khoz. nauk, red.; LEONOVA, T.S., red.; RAKITIN, I.T., tekhn. red.

[Second bread] Vtoroi khleb. Moskva, Izd-vo "Znanie," 1963. 31 p. (Novoe v zhizni, nauke, tekhnike. V Seriia: Sel'skoe khoziaistvo, no.21) (MIRA 17:1)
(Potatoes)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

1. SINYAGIN, I. I. : TROKHIMOVSKIY, V. A.

2. USSR (600)

4. Beets and Beet Sugar

7. Sowing sugar beets for feed in the non-chernozem zone. Dokl. sel'khoz no. 2 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

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1. TROKHIMOVSKIY, V. A.

2. USSR (600)

4. Agriculture - Congresses

7, Zonal conference of scientific research institutions of the central chernozem belt. Dost. sel'khoz. no. 3, 1952

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

1. SINYAGIN, I. I.: TROKHIMOVSKIY, V. A.

2. USSR (600)

4. Feeding and Feeding Stuffs

7. Sowing sugar beets for feed in the non-chernozem zone. Dost. sel'khoz. No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, P.N.

New suction filter for compressors. Khim. i neft. mashinostr. no.6:41 N '64 (MIRA 18:2)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

AUTHORS: Plutalova, L. A., Candidate of Technical Sciences, Trokhin, A. A., Engineer

SOV/67-11-5-8/16

TITLE: Piston Compressors Operating Without Lubrication of the Cylinders (Porshnevyye kompressory, rabotayushchiye bez smazki tsilindrov)

PERIODICAL: Kislorod, 1958, Vol 11, Nr 5, pp 48 - 53 (USSR)

ABSTRACT: The compressors described here are not Soviet compressors. The reason for the development of compressors which operate without lubrication of the cylinders is given fouling of the gas by oil, obstruction of the pipes in the liquefier. Because of the arising packing difficulties 2 types have been developed. Compressors with labyrinthine and such with packings consisting of graphite material. There are:1) Two compressors of the firm Burckhardt (Switzerland):600 m^3/hour, 6 atmospheres absolute pressure and 900 m^3/hour, 6 atmospheres absolute pressure; compressor of the firm Sulzer (Switzerland) 1430 m^3/hour, 6 atmospheres absolute pressure. Principle: freely rotating piston cylinders

Card 1/2

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(Figs). 2) Compressors with packings consisting of graphite material. For various graphite materials a table with their physico-mechanical properties is given). There are presented: A compressor of the firm Skoda (Czechoslovakia) (Fig) 300 m^3/hour, 4 atmospheres absolute pressure; one of the firm Burckhardt 17 m^3/hour, 31 atmospheres absolute pressure (Fig); Clark (US) 30 m^3/hour, and an oxygen compressor with 32 m^3/hour and 165 atmospheres absolute pressure; Germany with an oxygen compressor and one for hydrogen chloride. Furthermore it is mentioned that the USSR has also developed such compressors with an absolute pressure of up to 300 atmospheres. There are 6 figures, 1 table, and 7 references, 2 of which are Soviet.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

KHLUMSKIY, Vladimir [Chlumsky, Vladimir], prof.; TROKHIN, A.A., inzh. [translator]; RUMYANTSEV, V.A., dots., red.; RYZHOVA, L.P., inzh., red.izd-va; MODEL', B.I., tekhn. red.

[Piston compressors]Porshnevye kompressory. Pod red. V.A. Rumiantseva. Moskva, Mashgiz, 1962. Translated from the Czech. (MIRA 15:11)

1. Vysshaya tekhnicheskaya shkola v Prage (for Khlumskiy). (Compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Regulating the performance of reaction turboexpanders. Kislorod 12 no.5:32 '59. (MIRA 13:2)
(Refrigeration and refrigerating machinery)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Compressors operating without lubrication of cylinders. Khim. mash. no.6:46-47 N-D '59. (MIRA 13:3)
(Prague--Compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Seals of piston compressors. Khim. mash. 3 no.3:45-47 My-Je '59. (MIRA 12:12)
(Compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., insh.

Compressors with the labyrinth-type seal of shafts. Khim. mash. 3 no.3:43-45 My-Je '59. (MIRA 12:12)
(Compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

14(1) SOV/67-59-5-9/30

AUTHOR: Trokhin, A. A., Engineer

TITLE: Regulating the Performance of Reactive Turboengines Driven by Compressed Gas

PERIODICAL: Kislorod, 1959, Nr 5, p 32 (USSR)

ABSTRACT: Turboengines driven by compressed gas of the reactive type (radial, and with long blades) have a computed adiabatic efficiency of 81%. The performance of these engines cannot be regulated by the aid of nozzles as is the case with active ones (large drop in efficiency) but is usually regulated by throttling prior to entrance into the jet engine or by counterpressure (leads to a high loss in cold). Investigations were carried out by the VNIIKIMASh regarding the possibility of regulating the performance of reactive turboengines driven by compressed gas which resulted in the fact that the efficiency may be changed by switching off the nozzles of the distributor thus enabling a fine adjustment of the efficiency by partially switching off the nozzles without the disadvantages of the two methods mentioned. A control is only possible in a narrow range below the computed efficiency

Card 1/2

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Regulating the Performance of Reactive Turboengines Driven by Compressed Gas SOV/67-59-5-9/30

indicated.

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Hydraulic clutch for compressors. Khim. mash. no. 3:43 My-Je '60. (MIRA 14:5)

(Compressors) (Clutches (Machinery))

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

14(1)

AUTHOR: Trokhin, A. A., Engineer SOV/67-59-2-14/18

TITLE: Determination of the Number of Plates of a Rectifying Column (Opredeleniye chisla tarelok rektifikationnykh kolonn)

PERIODICAL: Kislorod, 1959, Nr 2, pp 51-52 (USSR)

ABSTRACT: The number of theoretical plates can be determined in a graphical way or by analytical calculation from plate to plate (Ref 1). The graphical method, which is illustrated in figure 1, is usually rather accurate; but as soon as the equilibrium curves and operational straight lines (rabochaya pryamaya) are too close to one another, it becomes rather inaccurate on too small a scale (magnification of this curve branch on figure 2). The author then gives a short description of the simplified calculation of theoretical plates in the boundary regions of the equilibrium curve as demonstrated by L. Vinš in his article "K určování počtu pater rektifikačnich kolon" (Stroirenstvi, 1958, sv. 8, Nr 10, pp 745-747). In this article the equilibrium curve in the upper part of the diagram was replaced by a straight line, i.e. by the tangent of the equilibrium curve in the point x = y = 1; further, the author of the afore-mentioned article set up the expressions for

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the number of theoretical plates in the general case, and in the case that one component is only in the vapor phase. Similar expressions were obtained also for the lower part of the equilibrium curve. The calculation may be employed in the case of high concentration of one or both components of the mixture to be separated. There are 5 figures and 2 references.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

SOV/67-11-5-13/18

AUTHORS: Kaganer, M. G., Petrovskiy, Yu. V., Afanas'yev, S. G., Candidates of Technical Sciences, Trokhin, A. A., Engineer

TITLE: From Foreign Journals (Po stranitsam zhurnalov)

PERIODICAL: Kislorod, 1958, Vol 11, Nr 5, pp 59-64 (USSR)

ABSTRACT: Under this title brief abstracts of articles published in foreign journals are presented. There are 14 articles dealing with the oxygen industry and its border fields, 9 American, 1 English, 1 German, 2 French and 1 Polish article. There are 3 figures.

Card 1/1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., insh.

Refrigeration compressors with longitudinally ribbed pipes. Kislorod 11 no.1:38-39 '58. (MIRA 11:3)
(Refrigeration and refrigerating machinery)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

PLUTALOVA, L.A., kand.tekhn.nauk; TROKHIN, A.A., inzh.

Piston compressors operating without lubrication of cylinders. Kislorod 11 no.5:48-53 '58. (MIRA 11:12)
(Air compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Using polystyrenes at low temperatures (from "Stvojivenstvi," no.4, 1958). Kislorod 11 no.5:62-64 '58. (MIRA 11:12)
(Czechoslovakia--Styrene) (Czechoslovakia--Liquid air)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A.

67-1-7/20

AUTHOR: Trokhin, A. A. , Engineer

TITLE: Centrifugal Compressors From the Factory CLKD-Stalingrad (Tsentrobezhnyye kompressory zavoda CLKD-Stalingrad)

PERIODICAL: Kislorod, 1958, , Nr 1, pp. 37 - 38 (USSR)

ABSTRACT: In the Czechoslovakian machine building factory CLKD-Stalingrad a series of centrifugal compressors consisting of 12 objects has been worked out, which have been classified by degrees according to their power output, and which correspond to the general power of 6300 to 80000 m^3/h. A table of the respective model designation and of the power output is given here. The smallest of these machines (6300 m^3/h) was exhibited in the fair at Brno in autumn, 1957. As advantages of this compressor its simple mounting , the possibility of fixing it to a platform truck in built up condition and its practical use as spare unit for the case of an operational breakdown are mentioned . There are 1 figure, 1 table, and 1 reference, 1 of which is Slavic.

Card 1/2

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67-1-7/20

Centrifugal Compressors From the Factory CLKD- Stalingrad

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1. Centrifugal compressors-Characteristics

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzh.

Determining the number of plates in fractionating columns. Kislorod 12 no.2:51-52 '59. (MIRA 12:8)
(Distillation apparatus)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A.

67-1-8/20

AUTHOR: Trokhin, A. A. , Engineer

TITLE: Compression Radiators Equipped With Finned Tubes (Kholodil'niki s prodol'no orebrennymi trubkami dlya kompressorov)

PERIODICAL: Kislorod, 1958, , Nr 1, pp. 38 - 39 (USSR)

ABSTRACT: As an introduction the author refers to foreign technical publications where allegedly the cooling tube with fins running parallel with the current in the tube are preferably discussed (from the Czech "Strojirenstvi", 1956, Nr 10, pp. 657-662). As an example the author here quotes a radiator of Czech production (2DSK350Z), the tube of which is equipped with fins and of which a sketch is also given here. It is said to have the advantage that the weight of the radiator can be remarkably reduced by it. Thus for example the compressor 2TLK710 of the factory ChKD-Sokolov (in Prague) had the old type of radiator weighing 900 kg whereas the new radiator for it with gilled tubes is said to have a

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

67-1-8/20

Compression Radiators Equipped Wit[illegible] Finned Tubes

weight of only 300 kg. The U-shaped gills are said to have turned out equally practical. There are 4 figures, and 1 reference , 0 of which is Slavic.

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1. Compression radiators-Cooling systems

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A.

67-6-13/23

AUTHORS: Trokhin, A.A., Engineer,
Petrovskiy, Yu.V., Candidate of Technical Sciences

TITLE: A Survey of Periodicals (Po stranitsam zhurnalov)

PERIODICAL: Kislorod, 1957, Nr 6, pp. 38-38 (USSR)
Received: April 7, 1958

ABSTRACT: Four abstracts from foreign newspapers are mentioned dealing with the following subjects: An oxygen turbocompressor (VDI Periodical, 1955, VII, 97, No 19/20, p. 614); New heat insulating material (Penouretan) (Barringer, Refrig. Eng. 1957, 4, pp. 53-6; 108; 111, 112, USA); On the application of oxygen in blast furnaces (James, Compressed Air Mag. 1957, 6, pp. 170-4), and on pumps for liquid oxygen (Missiles & Rockets, 1956, 3, pp. 35-54). There are 1 figure and 4 non-Slavic references.

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

FISHELEVICH, M.; SOKOLOVA, L.M.; TROKHIN, V.K.; IVASHCHENKO, S.A.; VASIL'KOV, G.V.; BORISOVICH, Yu.F.; OVSYANOV, N.I.; AMINOV, S.A.; SUVOROV, P.S.; SHUBIN, V.A.; CHIZHOV, A.

Information and brief news. Veterinariia 41 no.3:118-126 Mr '64. (MIRA 18:1)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHIN, A.A., inzhener.

Improving intercoolers of turbocompressors. Kislorod 10 no.2:42-43 '57. (MLRA 10:9)

(Czechoslovakia--Compressors)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ALIKAYEV, V.A.; DUL'NEV, V.I.; VASIL'KOV, G.V.; TROKHIN, V.K.; IVASHCHENKO, S.A.; PLATONOV, V.A., veterinarno-sanitarnyy ekspert; ROMANYUKHA, A.I.; BRYUSHKOV, P.; PERGAT, F.F.; SPIRIN, F.; ARKADSKIY, V.P.; MEDVEDEV, I.

Brief news. Veterinariia 41 no.10:118-126 O '64. (MIRA 18:11)

1. Nachal'nik veterinarno-sanitarnogo uchastka stantsii Melitopol' Pridneprovskoy zheleznoy dorogi (for Romanyukha).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

SOLOMKIN. P.S., prof.; TROKHIN, V.K.; IVASHCHENKO, S.A.; VASIL'KOV, G.V.; KAMENSKIY, I.V.; MELEKHIN, P.I.

Reviews. Veterinariia 41 no.7:112-114 Jl '64. (MIRA 18:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

PARIKOZHKA, I.A.; PUGACH, A.B.. Prinimali uchastiye: PASHCHENKO, Z.S.; FURMAN, I.I.; TRUSKALOV, N.P.; SHEVCHENKO, A.Ye.; SAKHAROVA, T.M.; TROKHINA, Zh.G.; LEVINOV, K.G.; YAKOVICH, A.Ye.. SALITAN, L.S., red.; SHEFER, G.I., tekhn.red.

[Manual on electric measurements of long-distance communication lines] Rukovodstvo po elektricheskim izmereniiam mezhdugorodnykh linii sviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1960. 194 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mezhdugorodnoy telefonno-telegrafnoy svyazi. 2. Kiyevskoye otdeleniye TSentral'nogo nauchno-issledovatel'skogo instituta svyazi (for Parikozhka, Pugach, Pashchenko, Furman, Truskalov, Shevchenko, Sakharova, Trokhina). 3. TSentral'nyy nauchno-issledovatel'skiy institut svyazi (for Levinov, Shvartsman). 4. UMMKS (for Yakovich).

(Telecommunication) (Electric measurements)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

GAVRILOV, F.P., otv. red.; TROKHMAN, A.V., red.; ZYUZINA, A.A., red.; KOZHEVNIKOV, P.M., red.

[Economy of Chelyabinsk Province; statistical collection] Narodnoe khoziaistvo Cheliabinskoi oblasti; statisticheskii sbornik. Cheliabinsk, Gosstatizdat TsSU SSSR Cheliabinskoe otdnie, 1961. 177 p. (MIRA 15:3)

1. Chelyabinsk. (Province) Oblasnoye statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Chelyabinskoy oblasti (for Gavrilov).
(Chelyabinsk Province--Statistics)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

RADKEVICH, V.R.; GUSEV, A.D.; TROKHMAN, S.A.

Basic trend in the automation of processes in veneering furniture panel elements. Bum.i der.prom. no.1:5-10 Ja-Mr '62. (MIRA 15:5)

1. Mebel'naya fabrika imeni Bozhenko.
(Veneers and veneering) (Assembly-line methods)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHOV, V.

Technology

For the hobor of the factory trade mark. (Moskva) Moskovskii rabochii, 1951.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKHOV, V.G.

Not enough fabrics, trimmings, and furnishings for children's clothing. Shvein.prom. no.6:39 N-D '59. (MIRA 13:4)

1. Nachal'nik Upravleniya shveynoy promyshelennosti Mosgorispolkoma.
(Children's clothing)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

KONYUKHOV, I.A.; TROKHOVA, A.A.

Dolomites in Lower Cretaceous sediments of western Georgia and conditions governing their formation. Izv.vys.ucheb.zav.; geol. i razv. 5 no.9:49-63 S '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Georgia--Dolomite)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

GUSEVA, A.N.; TROKHOVA, A.A.

Hydrocarbons of disseminated bitumens in Lower Cretaceous carbonate rocks of western Georgia. Izv.vys.ucheb.zav.; neft' i gaz 5 no.4:15-17 '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Georgia--Hydrocarbons)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

DRITS, M.Ye.; MAL'TSEV, M.V.; SVIDERSKAYA, Z.A.; PADEZHNOVA, Ye.M.; TROKHOVA, V.F.

Effect of additional alloying on the properties of alloys in the system Mg - Th - Mn. Issl. splav. tsvet. met. no.3:86-92 '62. (MIRA 15:8)

(Magnesium-thorium-manganese alloys)

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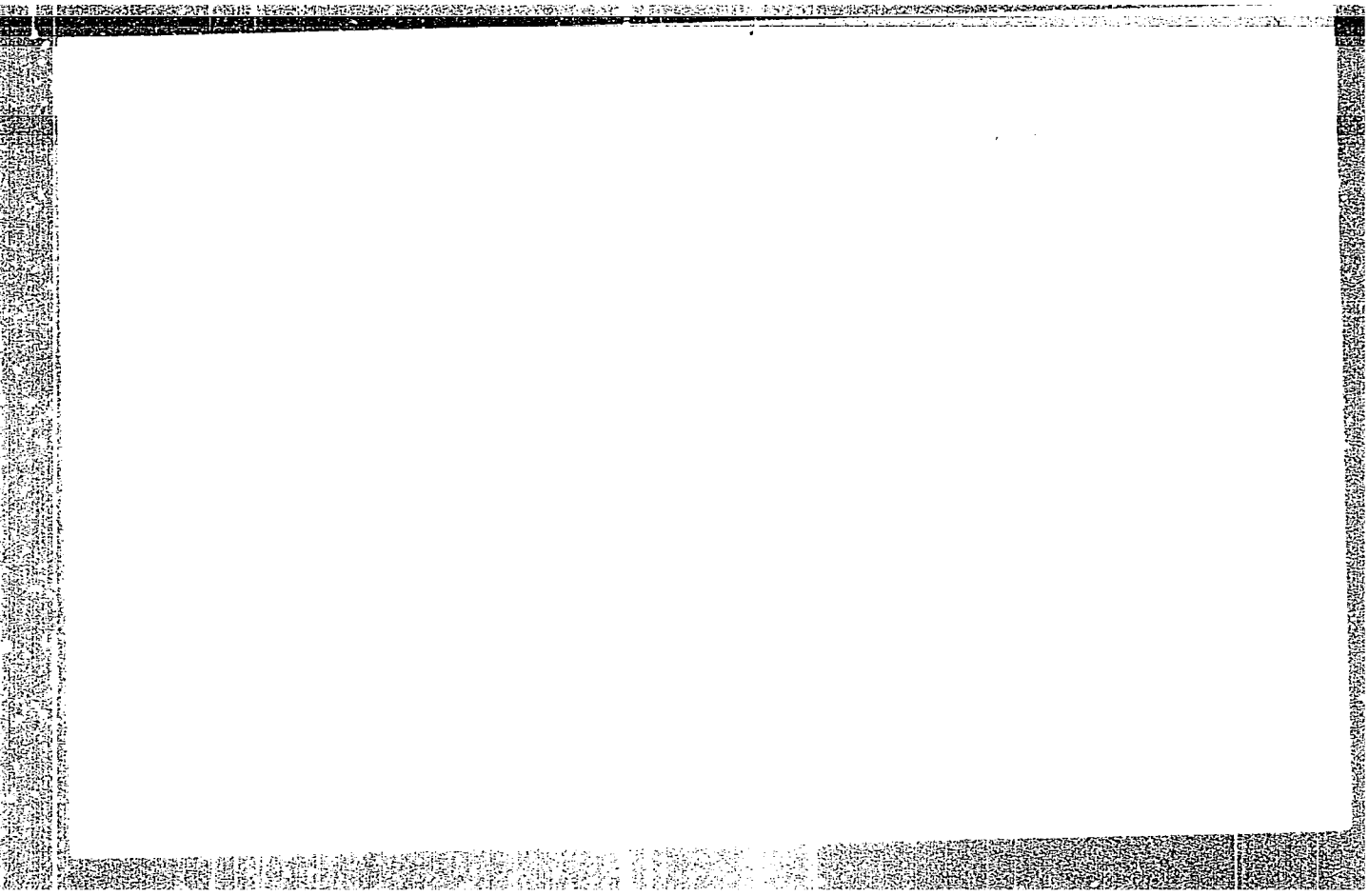

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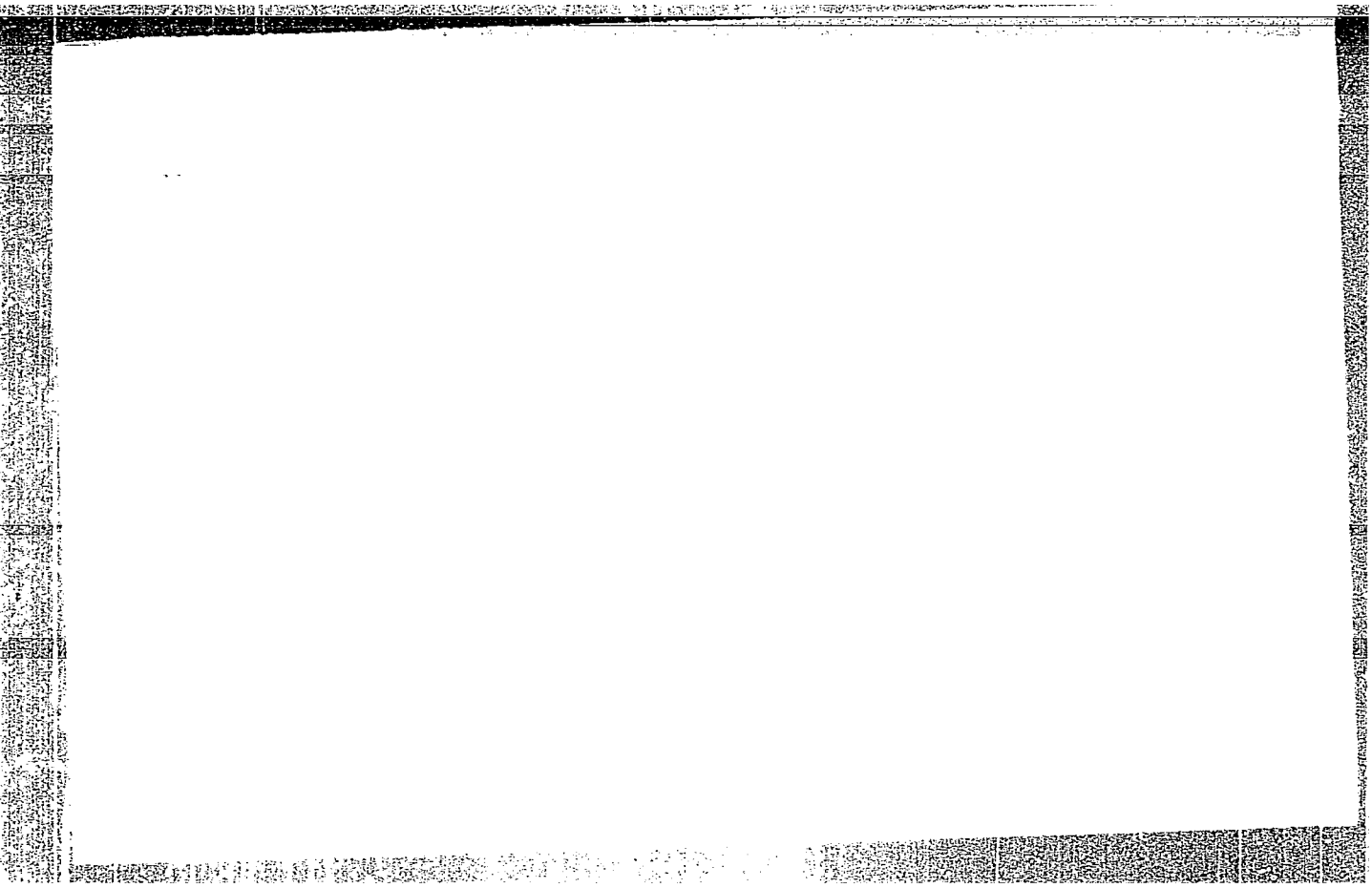

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

5.3600

77391
SOV/79-30-1-52/78

AUTHORS: Petrov, D. A., Danilova-Dobryakova, G. T., Trokhova, V. F.

TITLE: Concerning Thermal Decomposition of Organosilicon Compounds

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 235-239 (USSR)

ABSTRACT: Thermal decomposition of organosilicon compounds was studied in order to obtain pure silicon. According to the data obtained by Ch. E. Waring (Trans. Farad. Soc., 36, 1142, 1940), the thermal decomposition of tetraethylsilane can be expressed:

$$Si(C_2H_5)_4 \longrightarrow Si + 4C_2H_5\cdot,$$
$$Si(C_2H_5)_4 \longrightarrow \cdot Si(C_2H_5)_3 + \cdot C_2H_5 \quad (slow),$$
$$\cdot Si(C_2H_5)_3 \longrightarrow Si + 3C_2H_5\cdot \quad (slow),$$
$$\cdot C_2H_5 \longrightarrow C_2H_4 + H,$$
$$2H \longrightarrow H_2 \quad (fast),$$
$$C_2H_4 \longrightarrow CH_4 + C \quad (slow).$$

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

Concerning Thermal Decompcsition of Organosilicon Compounds

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SOV/79-30-1-52/78

Decomposition of the 11 compounds (shown in Table 1) was conducted on the apparatus shown in Fig. 1.

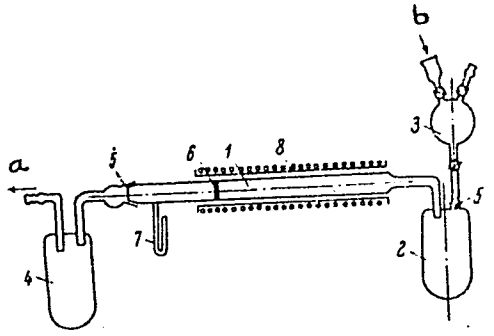

Fig. 1. Scheme of apparatus for thermal decomposition of silicon organic compounds. (a) To pump; (b) compound. (1) Quartz tube (reactor, 26 mm in diameter); (2) quartz evaproator; (3) vacuum funnel; (4) trap, cooled with liquid nitrogen: (5) ground joints; (6) quartz filter Nr 1; (7) mercury manometer; (8) tube furnace.

Card 2/4

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The decomposition was conducted at 300-1,200° and 50-80 mm. The results are shown in Table 2.

Table 2. Carbon content in initial compounds and in products of decomposition.

Investigated compounds	Decomposition begins at the temperature	Carbon Content %				
		in the starting compound	in the decomposition products obtained at temperatures			
			600°	800°	1000°	1200°
$(CH_3)_4Si$	660°*	54	25.3	27.3	28.3	—
$(C_2H_5)_4Si$	580*	66.7	20.5	22.6	30.0	31.4
$CH_3(C_2H_5)_2SiH$	600	58.8	23.8	25.5	26.7	—
$CH_3(C_4H_9)_2SiH$	1000	68.3	does not decompose	does not decompose	10.3	19
$(C_2H_5)_3C_6H_5Si$	800	75	The same	25.3	—	—
$CH_2{=}CH{-}CH_2(CH_3)(C_6H_5)SiH$	800	74	" "	23.5	23.6	—
$(CH_3)_2Si(C_2H_5)C_6H_5$	800	73	" "	27.3	28	—
CH_3SiHCl_2	800	10.4	" "	22.5	25.3	—
$C_2H_5SiHCl_2$	800	18.6	" "	23.5	27.5	—
$(CH_3)_2Si(OC_2H_5)_2$	600	48.6	28.3	31	36.6	39.7
$C_6H_5(CH_3)Si(OC_2H_5)_2$	800	62.7	does not decompose	28.4	42	46

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Concerning Thermal Decomposition of Organosilicon Compounds

77391
SOV/79-30-1-52/78

The following conclusions are made: The solid products of decomposition of organosilicons always contain silicon and carbon (10-40%); the amount of carbon in the solid products of decomposition increases with rising temperature; there is no dependence between carbon content in the initial compounds and in the solid products of decomposition; admixtures, which are present in the initial compounds, pass fully into the solid products of decomposition, except Mn and Na. There are 11 references, 6 U.S., 1 U.K., 2 German, 2 Soviet. The 5 most recent U.S. references are: G. Aston, R. M. Kennedy, J. Am. Chem. Soc., 69, 2692 (1947); F. Whitmore, L. H. Sommer, and others, J. Am. Soc., 68, 475 (1946); L. J. Tyler and others, J. Am. Chem. Soc., 70, 2876 (1948); R. O. Sauer and others, J. Am. Chem. Soc., 68, 962 (1946); H. Emeleus, S. Robinson, J. Am. Chem. Soc., 69, 1952 (1947).

SUBMITTED: December 27, 1958
Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ZAKHAROV, M.V.; SVIDERSKAYA, Z.A.; DRITS, E.M.; TROKHOVA, V.F.

Effect of tin on the properties of deformable magnesium alloys at room and higher temperatures. Trudy Inst. met. no.12:152-160 '63. (MIRA 16:6)

(Magnesium alloys--Metallography)
(Deformations(Mechanics))

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

L 5375-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5027095 UR/0149/65/000/005/0101/0107
669.721

AUTHOR: Drits, M. Ye.; Sviderskaya, Z. A.; Trokhova, V. E.

TITLE: Properties of lithium-containing magnesium alloys

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 5, 1965, 101-107

TOPIC TAGS: lithium containing alloy, magnesium base alloy, crystal lattice, hardness, tensile strength, compressive strength, plasticity

ABSTRACT: Alloying Mg with Li produces alloys of a density lower than that of the normally used Mg alloys (1.3-1.6 g/cm^3). Moreover, when the Li content exceeds 11%, the close-packed hexagonal lattice of Mg changes to a body-centered cubic lattice, thus assuring an exceptional suitability for pressworking. The available literature indicates that the properties of these alloys are greatly affected by the purity of starting materials, and particularly by the Na content (an impurity of Li), as well as by the conditions of the preparation and processing of the alloys. This complicates a comparison of the findings of individual investigators, particularly since the conditions under which the alloys are obtained are not always reported. To fill this gap, the authors investigated the properties of binary and certain ternary Li-containing Mg alloys prepared under fixed conditions from Mg (99.1% pure), electrolytic Li (99.7% pure, containing 0.15-0.20% Na), A00 Al (99.7% pure), and KD0 Cd (99.97%

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pure). Depending on the amount of Li added, the Na content of the alloys varied from 0.01 to 0.04%. The specimens for mechanical tests were prepared from hot-pressed rods. On alloying Mg with Li, the hardness of the alloys increases until the two-phase region $\alpha + \beta$ is attained (5-7% Li). As the Li content is further increased, transition to the β-solid solution region takes place and, in alloys with 12-14% Li, the hardness falls below the hardness of pure Mg. The presence of Li in the alloys hardens them to a comparatively small extent (at 5-7% Li the hardness is only 5-6 kg/mm^2 higher than the hardness of Mg). The same may be said of the effect of Li on compressive and tensile strength of the alloys: the values of this strength are somewhat higher than for pure Mg when the Li content is 3-7% (when the alloys have a two-phase structure), but they decrease once transition to the β-phase region takes place. If the Li content is below 3%, the structure of the alloys is an α-solid Mg-base solution. This pattern is to a large extent offset in ternary Mg alloys where the presence of Al or Cd as the third alloy element markedly enhances the hardness and the tensile and compressive strength, particularly when Al is used. The best combination is that of alloys containing 2-5% Li and 5-10% Al, as then tensile strength is 27-33 kg/mm^2 and yield point = 17-22 kg/mm^2. Allowance must be made, however, for the adverse effect of Al on the plasticity of the alloys, due to the appearance of brittle intermetallic phases in their structure. Evidently, the optimal content of Al must be determined on taking into account the concentration of Li and other alloy elements, as well as the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

L 5375-66

ACC NR: AP5027095

3

presence of impurities. Orig. art. has: 5 figures, 2 tables.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Baykov Institute of Metallurgy)

44,55

SUBMITTED: 18Jun64 ENCL: 00 SUB CODE: MM, SS

NO REF SOV: 003 OTHER: 011

GC

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

DRITS, M.Ye., doktor tekhn. nauk, otv. red.; BOCHVAR, A.A., akademik, red.; BELOV, A.F., doktor tekhn. nauk, red.; DOBATKIN, V.I., doktor tekhn. nauk, red.; MAL'TSEV, M.V., doktor tekhn. nauk, red.; FRIDLYANDER, I.N., doktor tekhn. nauk, red.; SVIDERSKAYA, Z.A., kand. tekhn. nauk, red.; YELAGIN, V.I., kand. tekhn. nauk, red.; BARBANEL', R.I., kand. tekhn. nauk, red.; SHAROV, N.V., kand. tekhn. nauk, red.; KADANER, E.S., kand. tekhn.nauk, red.; TROKHOVA, V.F., red.; CHERNOV, A.N., red.

[Metallography of light alloys] Metallovedenie legkikh splavov. Moskva, Nauka, 1965. 226 p. (MIRA 18:10)

1. Moscow. Institut metallurgii.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

DRITS, M.Ye.; SVIDERSKAYA, Z.A.; TROKHOVA, V.F.

Properties of magnesium alloys containing lithium. Izv. vys. ucheb. zav.; tsvet. met. 8 no.5:101-107 '65. (MIRA 18:10)

1. Institut metallurgii imeni Baykova.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

L 07365-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/JG/JH
ACC NR: AP6033619 SOURCE CODE: UR/0136/66/000/010/0077/0081

AUTHOR: Drits, M. Ye.; Sviderskaya, Z. A.; Trokhova, V. F.

33
30
B

ORG: none

TITLE: Effect of chemical composition on properties of Mg-Li alloys

SOURCE: Tsvetnyye metally, no. 10, 1966, 77-81

TOPIC TAGS: magnesium lithium alloy, alloy composition, ~~alloy~~ metal property, alloy structure

ABSTRACT: The properties of binary magnesium-base alloys containing 0—12% lithium, melted from 99.91%-pure magnesium and 99.96%-pure lithium (to eliminate the effect of sodium), were determined in the hot-extruded or annealed (at 500C for 50 hr) conditions. It was found that lithium content increased the resistivity up to 12%: from 4.6 to 14.4 μ·ohm·cm for both hot-extruded and annealed specimens. With lithium content increased to 5%, microhardness increased from about 50 to 58 kg/mm^2 but dropped by 6—8 kg/mm^2 with further increase of lithium content. The density of alloys decreased with increasing lithium content from 1.74 g/cm^3 for pure magnesium to 1.39 g/cm^3 for alloy with 12% lithium. The tensile strength of hot-extruded alloy with 12% lithium (β-phase) dropped more than 50% and the elongation increased 8 times compared to those of pure magnesium. Annealing lowered the tensile strength of pure magnesium from 21 to 10 kg/mm^2; annealed alloys containing up to 10% lithium

Card 1/2 UDC: 669.721'884:620.1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

L 07365-67
ACC NR: AP6033619

have a tensile strength 2—7 kg/mm^2 higher than pure magnesium. The elongation of annealed alloys with 1—5% or over 10% lithium is lower than that of hot-extruded alloys. In two-phase alloys (5—10% Li), no difference is observed. The yield strength of hot-extruded or annealed alloys follows the same pattern as the tensile strength. Hot-extruded magnesium has a fine-grained structure; alloys containing over 10% lithium have a coarse-grained structure. Lithium has little or no effect on the recrystallization process. The β-phase appears in hot-extruded alloys at 3% lithium and is present in considerable amounts in alloys with 5% lithium. The structure of alloy with 6—9% lithium consists of α and α + β eutectic. Alloys containing over 10% lithium have a homogeneous structure of β-solid solution. The alloys containing more than 3% lithium have a tendency to soften under stresses at temperatures as low as 60—100C. The rupture strength of alloys with 9—12% lithium is 80% lower than that of pure magnesium. Only in alloy containing 2% magnesium is the rupture life higher than in pure magnesium. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 002/ ATD PRESS: 5101

Card 2/2 afs

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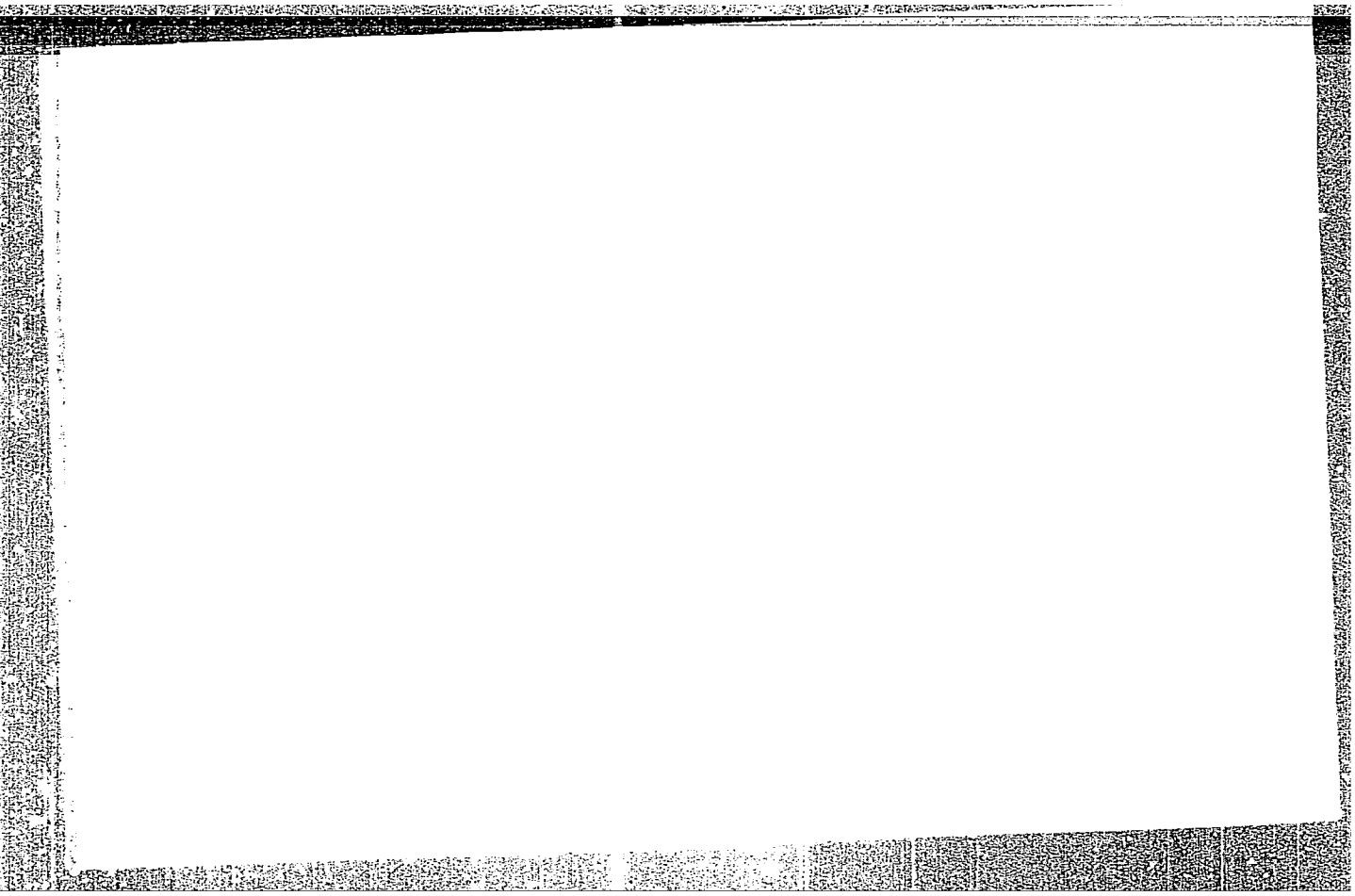

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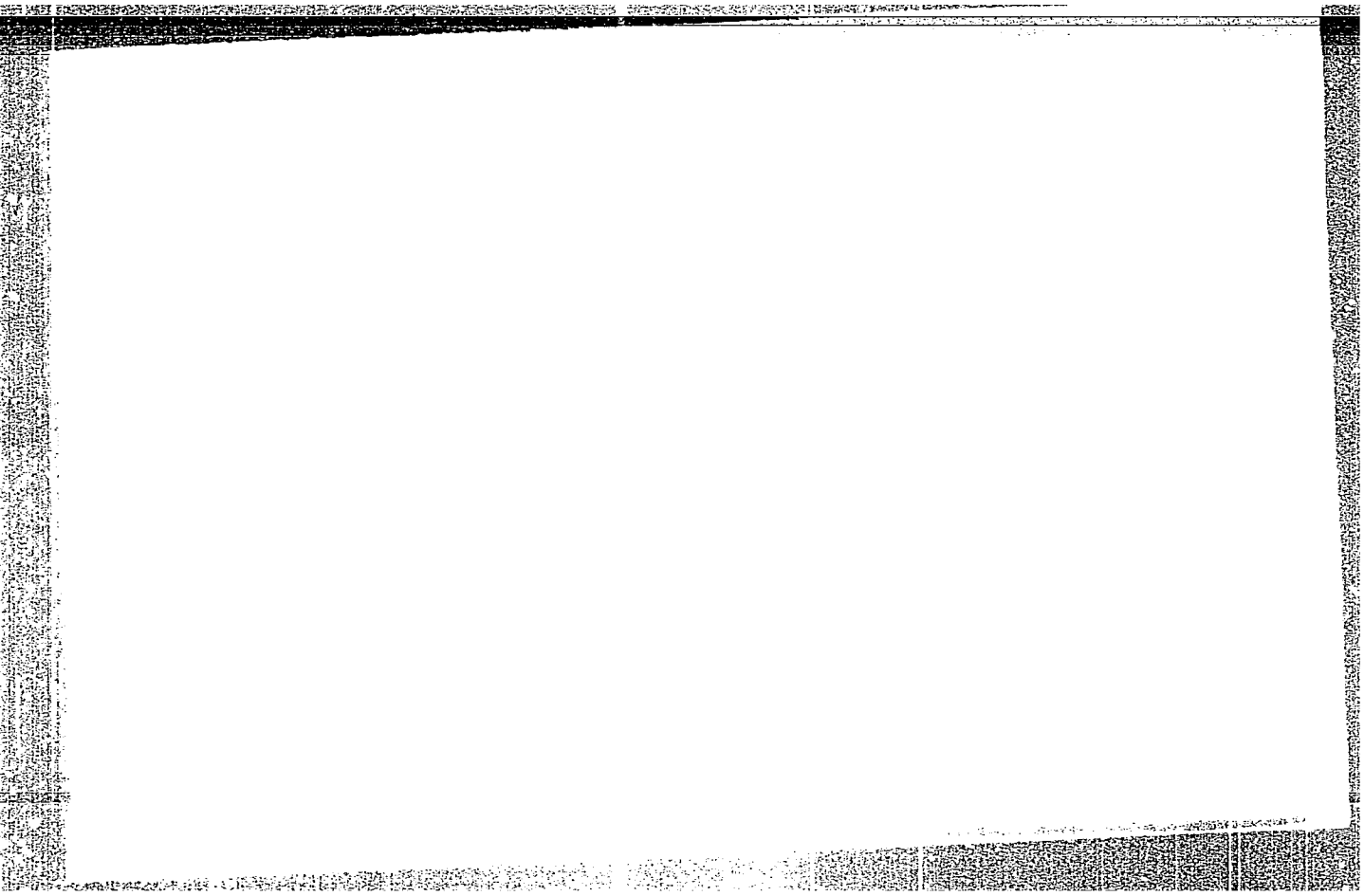

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ACCESSION NR: AR4046014 S/0058/64/000/007/E093/E093

SOURCE: Ref. zh. Fizika, Abs. 7E705

AUTHORS: Vasil'yev, A. A.; Gruzin, P. L.; Zharov, Yu. D.; Polikarpov, Yu. A.; Trokin, Yu. A.; Breger, A. Kh.; Gol'din, V. A.

TITLE: Effects of gamma and neutron irradiation on the internal friction of copper

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 250-257

TOPIC TAGS: internal friction, copper, polycrystal, single crystal, gamma irradiation, neutron irradiation, temperature dependence, annealing

TRANSLATION: The internal friction (IF) of polycrystalline and single-crystal samples of copper was measured under flexural vibra-

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ACCESSION NR: AR4046014

tions, using a Forster type installation, in the interval from -196 to +200C, before and after irradiation with gamma rays (Co^{60}) and neutrons (Po-Be source and a reactor). Prior deformation of the samples, on the order of 10^{-3}, greatly increases the IF level. The subsequent irradiation of the samples with neutrons leads to a decrease in the IF to one-half, but the level of the IF remains above that in annealed copper. Annealing at 200C for three hours lowers the IF level to the initial value. In the study of the temperature dependence of the IF it has been established that irradiation lowers the IF background introduced by the prior deformation. Irradiation with gamma rays increases the IF. An analysis of the amplitude and temperature dependences of the IF shows that the interaction of the dislocations with the point defect is the principal process. L. Gordiyenko.

SUB CODE: MM, SS ENCL: 00

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKOWICZ, Danuta

Potentiometric titration of primary aromatic amines with sodium nitrite. Chem anal 8 no.1:107-111 '63.

1. Katedra Chemii Ogolnej, Wyzsza Szkola Pedagogiczna, Gdansk.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKOWICZ, J.

27

Determination of gold in alloys containing copper and silver by potentiometric titration with hydroquinone. Andrzej Czapliński and Jan Trokowicz (Katedra Anal. Tech. i Towaroznawstwa Politechniki, Gdańsk, Poland). *Chem. Anal.* (Warsaw) 4, 483–8 (1959) (English summary).—The reaction: $2NaAuCl_4 + 3p\text{-}C_6H_4(OH)_2 \rightleftarrows 2Au + 3p\text{-}C_6H_4O_2 + 2NaCl + 6HCl$ was used for detg. Au in alloys contg. Cu and Ag. Pt and calomel electrodes were used. Potential change at 50° at equiv. point after adding [illegible] and dissolve in aqua regia contg. NaCl. Evap. the soln almost to dryness, treat with 10 ml. concd. HCl, and re-evap. to 1 ml. Dil. with H_2O to 100 ml., filter AgCl, wash till neutral, and dil. the soln. with H_2O to 250 ml. Dil. 25 ml. of soln. with H_2O and titrate with 0.01 *N* hydroquinone (dissolve 0.5505 g. $p\text{-}C_6H_4(OH)_2$ in twice-distd. H_2O, add 2–3 ml. HCl, and add H_2O to make 1 l.). Cu, small amts. of Pt, and pH range 2–6 do not affect the detn. The method can be applied in serial industrial analyses.

Z. Kurtyka

4
4E2c
4E3c

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

POLAND

POMPOWSKI, Tadeusz, prof. dr inż; TROKOWICZ, Jan, dr inż.

Department of Technical Analysis, Polytechnic (Katedra Analizy Technicznej i Towaroznawstwa Politechniki), Gdansk - (for both).

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1211-1215.

"Determination of gold in copper concentrates by spectrophotometric method."

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKOWSKI, R.

"How we conceive cooperation with the milling trade," Gospodaka Zbozowa, Warszawa, Vol 5, No 6, June 1954, p. 27.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

SKOMOROVSKIY, Ya.Z., kand. tekhn. nauk; TROKHOV, A.F.; YUDOVSKIY, D.G.

Determining the true angle of rotation of a pipeline laid on the transverse slope of an area. Trudy VNIIST no.15:161-168 '63. (MIRA 17:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROKSKAYA, Z.I.; TEMKIN, Z.Ye.; KHETAGUROV, G.D., kand. tekhn. nauk

Quality of nonferrous metal bres and the profitableness of their production; discussion of the article by B.F. Novozhilov. Gor. zhur. no.11:7-11 N '63. (MIRA 17:6)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii, Moskva (for Trokskaya, Temkin).
2. Srednеaziatskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta tsvetnykh metallov, Almalyk (for Khetagurov).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

UKRAINSKIY, M.A., st. nauchn. sotr.; MASKEVICH, M.M.; LODEYSHCHIKOV, V.V., kand. tekhn. nauk; SKOBEYEV, I.K., prof., doktor tekhn. nauk; STAKHEYEV, I.S., kand. tekhn. nauk; KULIKOV, A.V., kand. tekhn. nauk; KULIKOVA, S.Ya., kand. geol.-miner. nauk; POKROVSKIY, L.A.; ALEKSANDROVA, N.N.; YELANSKIY, A.N., st. nauchn. sotr.; TROKSKAYA, Z.I.; BANDENOK, L.I., nauchn. sotr.; VERIGO, K.N.; TEMKO, V.P., red.

[Gold mining industry in capitalist countries; technical and economic survey] Zolotodobyvaiushchaia promyshlennost' kapitalisticheskikh stran; tekhniko-ekonomicheskii obzor. Moskva, 1963. 337 p. (MIRA 17:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy tsvetnoy metallugii. 2. TSentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy tsvetnoy metallurgii (for Ukrainskiy, Yelanskiy, Verigo).

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

AUTHOR: Trokskaya, Z.I. SOV/136-58-10-26/27

TITLE: Germanium Production in Capitalist States (Proizvodstvo germaniya v kapitalisticheskikh stranakh)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 10, pp 97 - 101 (USSR)

ABSTRACT: The author surveys literature on germanium production in the USA, UK, Belgium, Africa and Japan.
There are 1 table and 24 references, 18 of which are English, 1 French, 1 German and 4 Soviet.

Card 1/1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROLLE, G. A.

DMITRIYEVA, L. V. - laborant i, KELLER, I. M. - kand. tekhn. nauk, SMOLYAKOVA, Z. A. - inzh. CHERTKOVA, A. N. - laborant, TROLLE, G. A. - laborant

Respublikanskiy nauchno-issledovatel'skiy institut mestnykh stroitel'nykh materialov (ROSNIIMS)

Razrabotka Metodiki Bybora Optimal'nogo Rezhima Sushkikirpicha Page 103

SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950, Moscow 1951

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROMBACHEV, S.

Soedinenie morei. [Connecting the seas]. (Vokrug sveta, 1951, no. 2, p. 2-4, illus.). Discusses the achievement in canal construction, pointing out that the Volga-Don-Azov Waterway is not yet completed. Slated to be put into operation in Spring of 1952. DLC: G1.V6

SO: SOVIET TRANSFORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROMBACHEV, S.P.

OFFENGENDEN, Samuil Rafailovich, kandidat tekhnicheskikh nauk; PANADIADI, A.D., kandidat sel'skokhozyaystvennykh nauk; TROMBACHEV, S.P., inzhener, [deceased]; YARUSHIN, M.I., inzhener; KREMENETSKIY, N.D. kandidat sel'skokhozyaystvennykh nauk; KAGAN, G.S., inzhener; NIKOLAYEV, I.G., inzhener; TRUBACHEVA, Ye.G., kul'turtekhnik; SHKLYAREVSKIY, A.I., redaktor; FEDOTOVA, A.F., tekhnicheskiy redaktor.

[Operation of irrigation and drainage systems] Ekspluatatsiia gidromeliorativnykh sistem. Pod red.S.R. Offengendena. Moskva, Gos.izdvo sel'khoz.lit-ry, 1956. 535 p. (MLRA 10:6)
(Irrigation) (Drainage)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ACCESSION NR: AP4038422 S/0166/64/000/002/0059/0063

AUTHOR: Khrushchev, B. I.; Trombachev, Yu. T.; Petrunin, V. F.

TITLE: Semiconductor surface barrier counters

SOURCE: AN UzSSR. Izv. Seriya fiziko-matematicheskikh nauk, no. 2, 1964, 59-63

TOPIC TAGS: transistorized counter, surface barrier counter, silicon plate, nickel plating, thermal neutron, magnetic field, gamma radiation background

ABSTRACT: The authors developed a method for production of semiconductor counters. In order to preserve the life span of the minority charge carriers and their mobility, the counters were prepared of n-type silicon with a specific resistance of 300 ohm/cm, 0.4-1 mm thick of a square or rectangular shape and an area from 1mm^2 to 1 cm^2. The completed counters were tested on an α-source with a 5.6 MeV energy of α-particles. The tests were conducted in magnetic fields with magnitudes up to 12,000 erg. The authors concluded that silicon surface-barrier counters containing boron-10 may be used for counting thermal neutrons even in the presence of strong magnetic fields. The counters must, however, be protected against effects of light sources, because of their extreme sensitivity toward a γ-background. Orig. art. has: 5 figures and 1 equation.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

ACCESSION NR: AP4038422

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics AN UzSSR)

SUBMITTED: 26Aug63 DATE ACQ: 26Jun64 ENCL: 00

SUB CODE: NP NO REF SOV: 008 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2

TROMBCHINSKIY,

POLAND/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8
Equilibrium. Physicochemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7453

Author : Sventoslavskiy and Trombchinskiy
Inst : Polish Academy of Sciences
Title : Application of the Method of Intersecting Isobars to the Investigation of 3-Component Saddle-Point Azeotropes. XXII.

Orig Pub : Byul. Pol'sk. AN, 1955, Section 3, Vol 3, No 11, 605-609

Abstract : The method of intersecting isobars is proposed for the precise determination of the composition and the boiling point temperature of 3-component positive-negative azeotropes. The method combines distillation with ebulliometric measurements and is based on four independent ebulliometric measurements on the four section of the bp-isobar. In all these measurements the starting liquid is the main fraction obtained from the fractional

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756720010-2"